RECOMMENDED STANDARDS

FOR

Grading, Packing and Inspection of

MARYLAND FRUITS, VEGETABLES AND EGGS

For Additional Copies of These Grades, Communicate with

The Maryland State Department of Markets

COLLEGE PARK, MARYLAND

JULY, 1930

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GRADES FOR MARYLAND FRUITS AND VEGETABLES

The following specifications, definitions and terms have been recommended by the Bureau of Agricultural Economics of the U. S. Department of Agriculture as the official classification of grades to be used in the marketing of the various products listed. These grades will be used as the basis for determining the grade of any lot of Maryland produce inspected in the terminal markets by Federal Food Products inspectors, and at Maryland shipping points by Federal-State inspectors of the Maryland State Department of Markets.

SHIPPING-POINT INSPECTION SERVICE

Shipping-point inspection of fruits and vegetables has been made possible by a coöperative agreement between the Bureau of Agricultural Economics, U. S. Department of Agriculture, The Maryland State Department of Markets and the Extension Service of the University of Maryland.

The service is optional. Any financially interested party can secure an inspection of a car of produce by making application.

The certificates issued are Federal-State certificates, acceptable as prima facie evidence in all United States courts.

Inasmuch as neither Federal nor State funds are available for the employment of inspectors or the payment of such expenses as may be incurred in the performance of their duties, the service must be operated on a self-supporting basis. This is accomplished by the charging of fees. Such fees are used only for

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the maintenance of the Inspection Service.

Application for inspection and correspondence relative thereto should be addressed to The Maryland State Department of Markets, College Park, Maryland.

APPLES

The Maryland Apple Grading and Packing Law

GRADES FOR BARRELS AND BASKETS

(Chapter No. 627)

An Act to establish a standard for the grading, packing, marking, shipping and marketing of apples when packed in barrels or other closed packages.

SECTION 1. Be it enacted by the General Assembly of Maryland, That the standard grades or classes of apples grown in this State, when packed in closed packages, shall be as follows:

When this Act became effective July 1, 1916, no official apple grades had been established by the U. S. Department of Agriculture. Section 15 of this Act states: "Provided, however, that any such grades or classes of apples packed in closed packages which may hereafter be established by the United States shall be established and promulgated by the State Board of Agriculture as the official grades and classes for apples packed in closed packages in the State of Maryland."

The State Board of Agriculture on February 1, 1928, passed the following resolution:

"WHEREAS, The Maryland State Board of Agriculture is authorized in Section 15 of Chapter 627 of the Public General Laws of Maryland, entitled "An Act to establish a standard for the grading, packing, marking, shipping, and marketing of ap-

ples when packed in barrels or other closed packages" to establish and promulgate, as the official grades and classes for apples packed in closed packages in the State of Maryland, and grades or classes for apples packed in closed packages which may hereafter be established by the United States:

AND WHEREAS, There is urgent need that the official grades and classes for apples packed in closed packages in the State of Maryland be made to conform to the grades and classes established by the United States, and now generally in use in the Middle Atlantic and other nearby states:

BE IT RESOLVED, By the Maryland State Board of Agriculture that the official standards of the United States for the inspection and certification of barreled apples as promulgated from time to time by the Secretary of the United States Department of Agriculture, be, and the same are, hereby established and promulgated as the official grades and classes for apples packed in closed packages in the State of Maryland:

BE IT FURTHER RESOLVED, That the Maryland State Department of Markets, of the Extension Service of the University of Maryland, is hereby authorized, as the agent of the State Board of Agriculture, to exercise the powers of the said State Board in the administration and application of the said grades and classes for apples packed in closed packages in this State:

AND BE IT FURTHER RESOLVED, That this resolution shall take effect from the date of its adoption."

As a result of this action by the State Board of Agriculture, the following grades, promulgated by the Secretary of the United States Department of Agriculture,

as Amendment No. 10 to service and Regulatory Announcements No. 93,* are the official grades for apples packed in closed packages in the State of Maryland, and are herein set forth as Section 1 of the Maryland Law.

INTRODUCTION

The grades, size, and packing requirements apply to apples packed in containers other than the standard northwestern apple box.

Numbers and letters in parentheses following grade terms indicate where such terms are defined under "Definitions of Terms."

Decay, scald, or other deterioration developing in storage or in transit on apples otherwise up to grade shall be considered as affecting the condition and not the grade.

The tolerances specified for the various grades are placed on a container basis. However, any lot of apples shall be considered as meeting the requirements of a specified grade if, upon inspection, no sample from the containers in any lot is found to exceed the tolerances specified by more than one-half the amount allowed; provided, that the entire lot shall average within the tolerances specified.

GRADES

U. S. Fancy shall consist of apples of one variety which are mature (1) but not overripe, carefully hand picked (2), clean (3), well formed (4), free from decay, broken skins, and bruises (except those incident to proper packing), sprayburn, stings or other insect injury, disease, sun-scald, and visible water-core. The apples shall also be free from injury (6) by russeting (6a), limb rubs (6b), hail (6c), or mechanical or other means (6). Each apple of this grade shall

* This supersedes Amendment Nos. 4, 7, and 9, to Service and Regulatory Announcements No. 93 (Agricultural Economics).

have the amount of color specified hereinafter for the variety. (See size requirements).

In order to allow for variations incident to proper grading and handling, not more than a total of 10 per cent., by weight, of the apples in any container may be below the requirements of this grade, but not to exceed one-half of this tolerance, or 5 per cent., shall be allowed for defects causing serious damage (8), and not more than one-fifth of this amount, or 1 per cent., shall be allowed for decay.

U. S. No. 1 shall consist of apples of one variety which are mature (1) but not overripe, carefully hand picked (2), clean (3), fairly well formed (5), free from decay, broken skins, and bruises except those incident to proper packing. The apples shall also be free from damage (7) caused by sprayburn (7a), sun-scald (7a), visible watercore, russeting (7b), limb rubs (7c), hail (7d), disease (7e), insects (7f), or mechanical or other means (7). Each apple of this grade shall have the amount of color specified hereinafter for the variety. (See size requirements.)

In order to allow for variations incident to proper grading and handling, not more than a total of 10 per cent., by weight, of the apples in any container may be below the requirements of this grade, but not more than one-tenth of this amount, or 1 per cent., shall be allowed for decay.

U. S. No. 1 Early shall consist of apples of one variety which meet the requirements of U. S. No. 1 except as to color and maturity. Apples of this grade may have no red color and need not be mature. This grade is provided for early varieties only, such as Oldenburg (Duchess of Oldenburg), Gravenstein, Lowland Raspberry (Liveland Raspberry), Red June, Summer Hagloe, Twenty Ounce, Wealthy, Williams, and other varieties which ripen at the same period and which are often used for cooking purposes rather than for eating out of hand. (See size requirements.)

In order to allow for variations incident to proper grading and handling, not more than a total of 10 per cent., by weight, of the apples in any container may be below the requirements of this grade, but not more than one-tenth of this amount, or 1 per cent., shall be allowed for decay.

U. S. Commercial shall consist of apples of one variety which meet the requirements of U. S. No. 1 except for color. This grade is provided for apples which are mature but which do not have sufficient color to meet the specifications of U. S. No. 1. (See size requirements.)

In order to allow for variations incident to proper grading and handling, not more than a total of 10 per cent., by weight, of the apples in any container may be below the requirements of this grade, but not more than one-tenth of this amount, or 1 per cent., shall be allowed for decay.

U. S. Utility shall consist of apples of one variety which are mature (1) but not overripe, carefully hand picked (2), not seriously deformed, and free from decay. The apples shall also be free from serious damage (8) caused by dirt or other foreign matter, bruises, sprayburn (8a), sun-scald (8a), russeting (8b), limb rubs (8c), hail (8d), disease (8e), insects (8f), mechanical or other means (8). (See size requirements.)

In order to allow for variations incident to proper grading and handling, not more than a total of 10 per cent., by weight, of the apples in any container may be below the requirements of this grade, but not more than one-tenth of this amount, or 1 per cent., shall be allowed for decay.

U. S. Utility Early shall consist of apples of one variety which meet the requirements of U. S. Utility except as to maturity. Apples of this grade need not be mature. This grade is provided for early varieties only, such as

Oldenburg (Duchess of Oldenburg), Gravenstein, Lowland Raspberry (Liveland Raspberry), Red June, Summer Hagloe, Twenty Ounce, Wealthy, Williams, and other varieties which ripen at the same period and which are often used for cooking purposes rather than for eating out of hand. (See size requirements.)

In order to allow for variations incident to proper grading and handling, not more than a total of 10 per cent., by weight, of the apples in any container may be below the requirements of this grade, but not more than one-tenth of this amount, or 1 per cent., shall be allowed for decay.

COMBINATION GRADES

Combinations of the above grades may also be used as follows:

"Combination U. S. Fancy and U. S. No. 1."

"Combination U. S. No. 1 and U. S. Commercial."

"Combination U. S. No. 1 and U. S. Utility."

Combinations other than these are not provided for in connection with the U. S. apple grades.

Combination U. S. Fancy and U. S. No. 1 grade shall consist of a combination of U. S. Fancy and U. S. No. 1 apples, provided that at least 50 per cent., by weight, of the apples in any container shall meet the requirements of U. S. Fancy. (See size and color requirements.)

In order to allow for variations incident to proper grading and handling, not more than a total of 10 per cent., by weight, of the apples in any container may not meet the requirements of U. S. No. 1 grade, but not more than one-tenth of this amount, or 1 per cent., shall be allowed for decay. No part of any tolerance shall be used to reduce the amount of U. S. Fancy apples specified for this grade.

Combination U. S. No. 1 and U. S. Commercial grade shall consist of a combination of U. S. No. 1 and U. S. Commercial apples, provided that at least 50 per cent., by weight, of the apples in any container shall meet the requirements of U. S. No. 1. (See size and color requirements.)

In order to allow for variations incident to proper grading and handling, not more than a total of 10 per cent., by weight, of the apples in any container may not meet the requirements of U. S. Commercial grade, but not more than one-tenth of this amount, or 1 per cent., shall be allowed for decay. No part of any tolerance shall be used to reduce the amount of U. S. No. 1 apples specified for this grade.

Combination U. S. No. 1 and U. S. Utility grade shall consist of a combination of U. S. No. 1 and U. S. Utility apples, provided that at least 50 per cent., by weight, of the apples in any container shall meet the requirements of U. S. No. 1. (See size and color requirements.)

In order to allow for variations incident to proper grading and handling, not more than a total of 10 per cent., by weight, of the apples in any container may not meet the requirements of U. S. Utility grade, but not more than one-tenth of this amount, or 1 per cent., shall be allowed for decay. No part of any tolerance shall be used to reduce the amount of U. S. No. 1 apples specified for this grade.

Unclassified shall consist of apples which are not graded in conformity with any of the foregoing grades.

In addition to the foregoing requirements for U. S. No. 1 and U. S. Fancy, each apple of these grades must have the percentage of color shown in the table below. "Color" means a good shade of red characteristic of the variety. Faded brown stripes shall not be considered as color except in the case of the Gray Baldwin variety.

Variety	U.S.Fancy Per ct.	U.S.No.1 Per ct.
Solid red:		
Arkansas Black	50	25
Black Ben Davis	50	25
Esopus Spitzenburg	50	25
Gano	50	25
King David	50	25
Lowry	50	25
Opalescent	50	25
Virginia Beauty	50	25
Winesap	50	25
Other similar varieties	50	25
Red June	33	15
Other similar varieties	33	15
Striped or partially red:		
Jonathan	50	25
Kinnard	50	25
McIntosh	50	25
Missouri Pippin	50	25
Other similar varieties	50	25
Arkansas (Mammoth Black Twig)	33	15
Delicious	33	15
Baldwin	33	15
Gray Baldwin	33	15
Ben Davis	33	15
Bonum	33	15
Fameuse	33	15
Nero	33	15
Northern Spy	33	15
Paragon	33	15
Ralls (Geneton)	33	15
Rome Beauty	33	15
Stayman Winesap	33	15
Tompkins King	33	15
Wagener	33	15
Wealthy	33	15
Williams	33	15
Willowtwig	33	15
York Imperial	33	15
Other similar varieties	33	15
Oldenburg (Duchess of Oldenburg)	25	10
Gravenstein	25	10
Hubbardston	25	10
Red Astrachan	25	10
Smokehouse	25	10
Stark	25	10
Summer Rambo	25	10
Other similar varieties	25	10
Twenty Ounce	25	None
Other similar varieties	25	None
Red cheeked or blushed:		
Hyde King	(*)	None
Maiden Blush	(*)	None
Monmouth (Red Cheeked Pippin)	(*)	None
Winter Banana	(*)	None
Other red cheeked or blush varieties	(*)	None
Yellow or green varieties	(†)	(†)

* Blushed cheek. † Characteristic color.

MARKING REQUIREMENTS

In order to conserve space, abbreviations may be used for marking the U. S. combination grade names on containers. Only the following abbreviations shall be used:

"Comb. U. S. Fancy and No. 1" or "Comb. U. S. F. and No. 1" for **Combination U. S. Fancy and U. S. No. 1 grade.**

"Comb. U. S. No. 1 and Com." for **Combination U. S. No. 1 and U. S. Commercial grade.**

"Comb. U. S. No. 1 and Util." for **Combination U. S. No. 1 and U. S. Utility grade.**

SIZE REQUIREMENTS

The minimum size of the apples in any closed container shall be plainly stamped, stenciled, or otherwise marked on the container. Sizes shall be stated in terms of whole and quarter inches, or whole and eighth inches, as "2¼ inches minimum," "2½ inches minimum," "2⅝ inches minimum," "2¾ inches minimum," in accordance with the facts. It is suggested that both the minimum and maximum sizes be marked on the container, as "2¼ to 2¾ inches," "2½ to 2¾ inches," as such marking is especially desirable for apples marketed in the export trade.

"Size" means the transverse diameter of the apple taken at right angles to a line running from the stem to the blossom end.

In order to allow for variations incident to proper sizing, not more than 5 per cent., by weight, of the apples in any container may be below the specified minimum size. If the maximum and minimum sizes are both stated, an additional 10 per cent. tolerance is provided for apples which are larger than the maximum size stated.

PACKING REQUIREMENTS

Each package shall be packed so that the apples in the shown face shall be reasonably representative in size, color, and quality of the contents of the package.

STANDARDS FOR EXPORT*

(As applied to condition factors)

1. The apples in any lot shall be tightly packed when in barrels or baskets and shall be either fairly tight or tightly packed when in boxes.

2. They shall not be further advanced in maturity than firm ripe.

3. Not more than a total of 5 per cent. of the apples in any lot shall be damaged by bitter pit, Jonathan spot, scald, internal breakdown, water-core, freezing, decay, or other condition factors, except that—

(a) Not more than 2 per cent. shall be allowed for apples affected by decay.

(b) Not more than 2 per cent. shall be allowed for damage by internal breakdown.

(c) The apples shall be free from scald unless they are properly packed in oiled paper or have been especially treated with oil to prevent scald. When so packed or treated not more than 2 per cent. of slight scald shall be permitted.

* These standards apply to apples when packed in any container.

DEFINITIONS OF TERMS

As used in these grades:

1. "Mature" means having reached the stage of maturity which will insure the proper completion of the ripening process.

2. "Carefully hand picked" means that the apples do not show evidence of rough handling or of having been on the ground.

3. "Clean" means free from excessive dirt, dust, spray residue, or other foreign material.

4. "Well formed" means that the apples have the shape characteristic of the variety in the locality where grown.

5. "Fairly well formed" means that the apples may be slightly abnormal in shape but

not to an extent which detracts materially from the appearance of the fruit.

6. "Injury" means any defect which more than slightly affects the appearance or keeping quality. Any one of the following defects, or any combination thereof the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as injury:

(a) Russeting.

Smooth netlike russeting extending over an area of more than one-fourth of the surface in the aggregate.

Smooth solid russeting extending over an area of more than one-tenth of the surface in the aggregate.

Rough or barklike russeting affecting a total area of more than one-fourth inch in diameter.

(b) Limb rubs.

Light brown limb rubs affecting a total area of over one-half inch in diameter.

(c) Hail marks, if the injury is more than superficial or superficial hail marks exceeding one-fourth inch in the aggregate, or where the skin has been broken.

7. "Damage" means any injury or defect which materially affects the appearance or keeping quality. Any one of the following defects, or any combination thereof the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

(a) Sprayburn and sun-scald where the normal color of the apple is materially changed or the skin is blistered or cracked.

(b) Russeting.

Smooth netlike russeting extending over an area of more than one-fourth of the surface in the aggregate.

Smooth solid russeting extending over an area of more than one-tenth of the surface in the aggregate.

Rough or barklike russeting affecting a total of area of more than one-half inch in diameter.

(c) Dark brown or black limb rubs over one-half inch in diameter, or light brown limb rubs over 1 inch in diameter.

(d) Hail marks where the injury is more than superficial, or superficial hail marks exceeding one-half inch in the aggregate, or where the skin has been broken.

(e) Disease.

Scab spots which are not corked over or corked-over scab spots affecting a total area of more than one-fourth inch in diameter.

Cedar-rust infection which exceeds in the aggregate an area of one-fourth inch in diameter.

Sooty blotch or fly speck which is thinly scattered over more than one-tenth of the surface, or dark, heavily concentrated spots affecting an area of more than one-half inch in diameter.

(f) Insects.

More than two healed insect stings either of which is over one-eighth inch in diameter exclusive of any encircling discolored ring.

Worm holes.

8. "Serious damage" means an injury or defect which seriously affects the appearance or keeping quality. The following defects shall be considered as serious damage:

(a) Sprayburn and sun-scald which seriously detract from the appearance of the apple.

(b) Russeting.

Smooth, solid russeting extending over more than one-half of the surface in the aggregate.

Rough or barklike russeting which materially deforms or disfigures the fruit.

(c) Limb rubs which affect more than one-tenth of the surface in the aggregate.

(d) Hail marks which affect more than one-

tenth of the surface in the aggregate or which materially deform or disfigure the fruit.

(e) Disease.

Scab spots which are not corked over or corked-over scab spots affecting a total area of more than three-fourths inch in diameter.

Cedar-rust infection which exceeds in the aggregate an area of three-fourths inch in diameter.

Sooty blotch and fly speck affecting more than one-third of the surface.

(f) Insects.

Healed stings which materially deform or disfigure the fruit.

Worm holes.

A STATEMENT RELATIVE TO THE UNITED STATES APPLE STANDARDS

The adoption and use of standardized grades in transactions in farm produce has eliminated much of the source of misunderstanding and dissatisfaction. Clear-cut grades, based on variations in quality, provide a practicable basis for contracts and purchases upon which buyers and sellers can deal with mutual confidence and understanding.

U. S. grades have been promulgated for apples other than those packed in the standard northwestern apple box. In addition to the designation "Unclassified," nine grades have been provided as follows: U. S. Fancy; U. S. No. 1; U. S. No. 1 Early; U. S. Commercial; U. S. Utility; U. S. Utility Early; Combination U. S. Fancy and U. S. No. 1; Combination U. S. No. 1 and U. S. Commercial; Combination U. S. No. 1 and U. S. Utility.

U. S. Fancy grade is intended for the superior, highly colored apples for which a premium is usually secured. This grade permits only very slight blemishes which are su-

perficial and which do not affect the appearance of the apples.

U. S. No. 1 is provided for apples with less color and more minor blemishes than are allowed in U. S. Fancy grade.

U. S. No. 1 Early is provided for early varieties which may have no red color and which may not be mature but which meet all other requirements for U. S. No. 1 grade. Such apples are often used for cooking purposes rather than for eating out of hand.

U. S. Commercial is provided for apples which meet the requirements of U. S. No. 1 except for color. Apples of this grade must be mature.

U. S. Utility is provided for apples which are free from serious damage from any cause. During light-crop years this grade of apples may be utilized and shipped to advantage, but during years of heavy production it is best to send such stock to by-products plants or to local markets.

U. S. Utility Early is provided for early varieties which may not be mature but which meet all other requirements for U. S. Utility grade.

Combination grades are provided to care for many lots of apples which in the past have been marked Commercial or Unclassified although such lots may have contained a large percentage of high-quality apples. It is expected that the use of combination grades will reduce the quantity of stock shipped at the present time under the Commercial grade or the Unclassified designation.

STATEMENT OF CONDITION

Attention is called to the statement in the grades that scald, decay, or other deterioration which develops in storage or in transit on apples which are otherwise up to grade shall be considered as affecting the condition and not the grade. When ordering apples

which have been held in storage it is advisable to secure, in addition to the grade statement, information relative to the maturity and relative to the freedom from scald or decay or the percentages of scald or decay which may be in the particular lot in question.

STANDARDS FOR EXPORT*

(As applied to condition factors)

United States standards for export have been provided with a view to establishing a common language between exporters and the foreign buyers as to the condition of the apples at the time of inspection. It must be understood, however, that such factors as the previous handling and storage (as they affect keeping quality) or the temperature and length of time in transit may cause a change in the condition of the apples after they have been inspected. The tightness of pack may also be affected by decay or softening in transit.

Official certificates issued on requests for certification for export will bear the statement "Lot meets United States standards for export," provided the apples meet these standards. An inspection certificate which bears this statement will show that the lot of apples so described meets the United States standards for export at the time of inspection. It means that such apples were tightly packed when in barrels or baskets and were either tight or tightly packed when in boxes and not further advanced in maturity than firm ripe. It also means that not more than a total of 5 per cent. of the apples were damaged by bitter pit, Jonathan spot, scald, internal breakdown, water-core, freezing, decay, or other condition factors, except that not more than 2 per cent. were affected by decay and not more than 2 per cent. damaged by internal breakdown and that the apples were free from scald,

* These standards apply to apples when packed in any container.

except that when properly packed in oiled paper, or especially treated with oil to prevent scald, not more than 2 per cent. were affected with slight scald.

Although apples may be certified as meeting the export standards, such a statement on the certificate does not assure the buyer that the apples will arrive at destination in a satisfactory condition. Uncertainty as to such factors as time in transit, temperature, and ventilation in stowage, makes it manifestly impossible to forecast accurately the condition of such fruit on arrival at destination. Official certification merely describes its condition at the time of the inspection.

PACKING REQUIREMENTS

The United States standards specify that the "apples in the shown face shall be reasonably representative in size, color, and quality of the contents of the package."

It has long been the practice in the barreled-apple region to place the best apples in the shown face, and the custom has often been carried to extremes. The United States standard for packing is provided to discourage such extreme overfacing, which has been the cause of much dissatisfaction to buyers in both the domestic and foreign trade.

The apples used for facing should not be so different from the remainder of the apples as to cause a marked contrast. This applies to size as well as to the color and other quality factors. When 3-inch apples are used to face containers which contain mostly 2¼- to 2½-inch fruit, the contrast is so great that the 2¼-inch apples appear smaller than they really are, with consequent complaints. Similar objections frequently are made to containers which are faced with 2½-inch apples but which contain many 3-inch or larger apples in the middle of the barrel.

Most European markets prefer to have the range of sizes marked upon the barrels. Cer-

tain outlets desire medium or small sizes, whereas certain others prefer large sizes for cooking purposes.

It is suggested that the barrels should be marked with both the minimum and maximum sizes, especially when they are intended for export. Such marking of barrels as "2¼ to 2¾ inches" or other range of size which properly describes the fruit is far more definite than the statement of minimum size only.

BRUISING

Apples are often unnecessarily bruised by careless picking or by improper packing methods. Such bruises are not always evident at the time of packing, but they may become very pronounced several days later, and when the barrels are opened for display the apples may present an unattractive appearance.

Adequate racking of the barrels on a solid foundation during the period of filling is very important in preventing slack barrels. Many packers attempt to make tight packs through heavy pressing instead of through frequent vigorous racking prior to pressing. Apples which are bruised by pressing tend to become soft, or to decay in storage or in transit, so that overpressing often causes more slack barrels at destination than would occur if proper racking and pressing were practiced.

SEC. 2. The marks indicating grade as above prescribed may be accompanied by any other designation of grade or brand if that designation of grade or brand is not inconsistent with or marked more conspicuously than the one of the said five marks which is used on the said package. Apples packed and branded in accordance with United States law (the Sulzer Law) approved August third, nineteen hundred and twelve, shall be exempt from the provisions of this sub-title.

SEC. 3. The provisions of sub-sections (a), (b), and (c) of this section in the Code refer to minimum sizes and their designations.

All requirements of this section are provided for in the grade statements given in Section 1.

SEC. 4. (a) Every closed package containing apples grown in the State of Maryland which is sold, offered or exposed for sale, or packed for sale, or transported for sale by any person shall bear upon the outside of one end in plain letters and figures the name and address of the packer or the person by whose authority the apples were packed and the package marked, the true name of the variety, the grade or class of the apples therein contained and the minimum size of the fruit in the packages. If the true name of the variety shall not be known to the packer or the person by whose authority the package is packed or branded, then such variety shall be designated as "variety unknown." Every package of apples which is repacked shall bear the name and address of the repacker or the name of the person by whose authority it is repacked in place of that of the original packer.

(b) The brands or marks as prescribed by this sub-title shall be in block letters and figures of size not less than thirty-six point Gothic.

(c) It shall be unlawful for any person within the State to sell, offer or expose for sale, or pack for sale, or transport for sale apples which are adulterated or misbranded within the meaning of this sub-title.

SEC. 5. For the purposes of this sub-title apples packed in a closed package shall be deemed to be misbranded—

(a) If the package shall fail to bear the statements required by this sub-title.

(b) If the package shall be falsely branded or shall bear any statement, design or device regarding such apples which is false or misleading, or if the package bears any statement, design, or device indicating that the apples contained therein are a given Maryland "standard grade," or "cull grade," or "orchard

run class," and said apples when packed or repacked do not conform to the requirements of such grade.

SEC. 6. For the purposes of this sub-title apples packed in closed packages shall be deemed to be adulterated if their quality or grade when packed or repacked does not conform to the marks upon the package.

SEC. 7. It shall be unlawful for any person, unless he regrades and repacks the apples, to erase the original size, grade or variety of apples branded upon the package and in its place substitute a size, grade or variety-name different from the one marked upon the barrel by the packer of the apples.

SEC. 8. No person shall pack, or shall sell, or offer, expose, or have in his possession for sale any apples packed in any package in which the face or shown surface gives a false representation of the contents of such package; and it shall be considered a false representation when more than 15 per centum of such fruit is substantially smaller in size than, or inferior in grade to, or different in variety from, the faced or shown surface of such packing.

SEC. 9. Any person who misbrands or adulterates, or falsely represents apples within the meaning of this sub-title, or who violates any of the provisions of this sub-title shall, upon conviction thereof, forfeit and pay to the people of the State of Maryland a sum of not less than twenty-five dollars nor more than fifty dollars for the first violation and not less than fifty dollars nor more than one hundred dollars for each subsequent violation.

SEC. 10. No person shall be prosecuted under the provisions of this sub-title when he can establish satisfactory evidence to the effect that he was not a party to the packing and grading of such articles and had no knowledge that the same were misbranded or illegally packed, or when he can establish a guaranty, signed by the person from whom he received such arti-

cles, to the effect that the same are not adulterated or misbranded within the meaning of this sub-title. Said guaranty, or said satisfactory evidence, to afford protection, shall contain the true name and address of the party or parties from whom said articles were received, or who made the sale or shipment of such articles to such person.

SEC. 11. Definitions. The word "person" as used herein shall be construed to include both the singular and plural, individuals, corporations, co-partnerships, companies, societies and associations. The act, omission or failure of any officer, agent, servant or employee acting within the scope of his employment or office shall be deemed the act, omission or failure of the principal. The words "closed package" shall mean a box, barrel, basket, hamper, or other package covered with burlap, tarlatan, slat or other covers, the contents of which cannot be seen or inspected when such package is closed.

SEC. 12. No person shall on behalf of any other person pack any apples for sale or transportation contrary to the provisions of this sub-title.

SEC. 13. This sub-title shall not apply to apples actually transported in barrels to storage within this State until the same are sold, offered or exposed for sale, packed for sale, or transported for sale. Regulations and requirements herein in relation to transportation shall not apply to common carriers.

SEC. 14. The business of packing and marketing apples in the State of Maryland is hereby declared to be affected with a public interest and is subject to regulation and control by the State.

SEC. 15. The enforcement of this sub-title shall be vested in the State Board of Agriculture, and its officers, employees, agents and servants are authorized to enter upon the land and premises of any person within this State

for the purpose of inspecting packages of apples and securing evidence of violation of this sub-title. Provided, however, that any such grades or classes for apples packed in closed packages which may hereafter be established by the United States shall be established and promulgated by the State Board of Agriculture, as the official grades and classes for apples packed in closed packages in the State of Maryland.

APPLES—Box Packing Rules

Adopted from the Pacific Northwest

Note: Numbers in parentheses refer to definitions, pages 26 and 27.

Extra Fancy or First Grade shall consist of apples of one variety which are mature (1), clean (2), hand picked, well formed (3), free from bruises, limb rubs, spray burn, sun scald, russeting, drought spots, hail marks, visible water-core, broken skin, and from other damage caused by disease, insects or mechanical means, except that russeting at the stem-end characteristic of the variety shall be permitted.

Each apple shall have the amount of color hereinafter specified for apples in this grade.

Fancy or Second Grade shall consist of apples of one variety which comply with specifications for Extra Fancy Grade (except for color), except that they may be fairly well formed (4) and that scab spots affecting not to exceed a total area ¼ inch (11) in diameter or limb rubs, slight drought spots (5), slight hail marks (6), or heavy russet (7) affecting a total area not to exceed ½ inch (12) in diameter and slight russet (8), slight sun scald (9) and two small healed stings (10) on red varieties showing Extra Fancy color shall be permitted.

Each apple shall have the amount of color hereinafter specified for apples in this grade.

"C" Grade or Third Grade shall consist of apples which are free from infection, soft bruises and broken skin, provided that scab spots affecting a total area not to exceed ½ inch (12) in diameter and small healed stings (10) shall be permitted in this grade. Apples of this grade must not be marked "Choice."

SUMMER AND EARLY FALL VARIETIES

Summer varieties such as Astrachan, Duchess, Early Harvest, Red June, Strawberry, Twenty Ounce Pippin, Yellow Transparent and kindred varieties, not otherwise specified in these grading rules, together with early fall varieties such as Wolf River, Fall Pippin, Grimes Golden, Sweet Bough and other varieties not provided for in these grading rules, as grown in sections of early maturity, shall be packed and marked in accordance with the grading rules covering Fancy Grade as to defects but regardless of color.

COLOR REQUIREMENTS

Apples shall be admitted to the first and second grades subject to the following color specifications. The percentage stated refers to the area of the surface which must be covered with a good shade of red characteristic of the variety.

For the striped or partial red varieties the percentage of the color required shall be the specified percentage of area in which the stripes of good red shall be in preponderance over the stripes of thin red, green or yellow.

SOLID RED VARIETIES.

	Extra Fancy	Fancy
Arkansas Black	75%	25%
Baldwin	75%	25%
Black Ben Davis	75%	25%
Gano	75%	25%
King David	75%	25%
Red June	75%	25%
Spitzenburg Esopus	75%	25%
Winesap	75%	25%

STRIPED OR PARTIAL RED VARIETIES.	Extra Fancy	Fancy
Delicious	65%	25%
Stayman Winesap	65%	25%
Jonathan	65%	25%
McIntosh Red	65%	25%
Black Twig	50%	25%
Ben Davis	50%	15%
Hubbardston	50%	15%
Missouri Pippin	50%	15%
Northern Spy	50%	15%
Red Astrachan	50%	15%
Rome Beauty	*50%	15%
Stark	50%	15%
Sutton	50%	15%
Wealthy	50%	15%
York Imperial	50%	15%
Gravenstein	25%	10%
King	25%	10%
Oldenburg	25%	10%

RED CHEEKED OR BLUSHED VARIETIES.

Fancy—No color requirements. No stings.
Extra Fancy—Perceptibly blushed cheek.
Winter Banana. Maiden Blush.

GREEN AND YELLOW VARIETIES.

Extra Fancy—Characteristic color.
Fancy—No color requirements. No stings.
Grimes Golden. Yellow Bellflower.
Yellow Newton. Rhode Island Greening.

* No color requirements for Fancy Rome Beauty 100 and larger.

DEFINITION OF TERMS

(1) "Mature" means having reached the stage of maturity which will insure the proper completion of the ripening process.

(2) "Clean" means reasonably free from dust or dirt and free from excessive visible spray residue.

(3) "Well formed" means having the shape characteristic of the variety in the locality where grown.

(4) "Fairly well formed" means that the apple may be of slightly abnormal shape but not deformed so as to cause a loss in paring.

(5) "Slight drought spots" means those drought spots where the surface of the apple is only slightly discolored and depressed.

(6) "Slight hail marks" means only those where the injury is superficial and the skin has not been broken or discolored.

(7) "Heavy russet" means solid bark or cork-like spots such as are characteristic of frost, green fruitworm and leafroller injury.

(8) "Slight russeting" means russet of a smooth nature characteristic of leaf scratches and mildew russeting affecting an area not to exceed 10% of the surface of the apple in the aggregate and spreading over, or netting, not more than 20% of the surface.

(9) "Slight sun scald" means that stage of sunburn where the normal color of the apple is but slightly changed over not more than 10% of the area of the apple and there is no blistering or cracking of the skin in evidence.

(10) "Worm sting." The term "worm sting" means a thoroughly healed worm sting as the healing of the sting is the only evidence which shows that it is not infected. **"Small healed stings"** are further defined as those in which the diameter of the dark discoloration caused by the sting exclusive of any encircling green ring shall not be more than ⅛ inch. A spot ⅛ inch in diameter is herewith illustrated.

(11) A spot ¼ inch in diameter is herewith illustrated.

(12) A spot ½ inch in diameter is herewith illustrated.

SIZE

Packed apples in any one package shall not vary more than ½ inch in their greatest transverse diameter in boxes marked with sizes 125 or larger, and not more than ¼ inch in their greatest transverse diameter in boxes marked with sizes 138 or smaller. The size of apples which are jumbled in packages or which are in bulk may be designated by the range in size or the minimum and maximum diameters of the apples in the lot. Minimum diameter shall be stated in terms of whole and quarter inches as "1¾ in. min.," "2 in. min.," "2¼ in. min.," according to the facts. Packages containing apples "Jumbled" or packed "Face and Fill" should be marked with the minimum size of the apples which they contain.

PACKING

Boxes. All apples packed under these regulations shall be arranged in the container according to the approved and recognized methods with the stems pointing towards the ends of the box except when jumbled and all packages shall be tightly filled, but the contents shall not show excessive or unnecessary bruising because of an over-filled package. Each packed box must show a minimum bulge of ½ inch on both top and bottom. Each apple wrapped shall be completely enclosed by its individual wrapper.

CONDITION

Scald, decay, or other diseases, which may develop after the apples are packed, and the effects of freezing, are defined as applying to condition rather than to grade provided that satisfactory evidence be presented to show that these defects were not noticeable at the time of packing. In cases, however, where decay follows skin punctures these punctures will be counted in determining the grade.

TOLERANCE

In order to allow for variation incident to commercial grading and handling a "tolerance" of 10% for a total of all defects from the standard of grades, and an additional 10% tolerance for a total of all defects from the standards defined for uniformity of size, wrapping, tightness of pack, and bulge will be permitted and shall be computed by counting, weighing, or measuring the specimens judged to be below the standards.

MARKING BOXES

State and Federal rules and laws require that the markings of fruit boxes include the correct name of the variety, or "variety unknown," the name of the grower and his address, the grade and the number of apples and the net contents, either in terms of dry measure or weight.

Any of these marks may be printed on the label, but in case they are not they must be stamped on the end of the box in a space 1½ inches wide above the label, except as noted below.

In marking the grade "Fancy" on the end of the box it should be placed close enough to the left hand edge of the box so that an unscrupulous dealer cannot put the word "Extra" in front of it. In case the word is not so placed the grade "Fancy" should be preceded by a heavy line at least ½ inch long.

The grower's name and address (if not included on the label), must be placed either in line with the grade marks above the label or on the opposite end of the box. Labels when used must be placed on the same end of the box as the grade mark and should bear the notation "Maryland Standard Pack."

The following arrangements are suggested:

Fancy Winesap Grown by: 125
John Jones
Anywhere, Md.

LABEL

Standard Pack One Bushel

Maryland Cubic Contents

APPLE PACKS

Style of Pack—Diagonal	No. in Box
2x1 wide, 4-4 long, 3 layer deep	36
2x1 wide, 5-4 long, 3 layer deep	41
2x1 wide, 5-5 long, 3 layer deep	45
2x1 wide, 6-5 long, 3 layer deep	50
2x1 wide, 6-6 long, 3 layer deep	54
2x2 wide, 3-3 long, 4 layer deep	48
2x2 wide, 3-4 long, 4 layer deep	56
2x2 wide, 4-4 long, 4 layer deep	64
2x2 wide, 4-5 long, 4 layer deep	72
2x2 wide, 5-5 long, 4 layer deep	80
2x2 wide, 5-6 long, 4 layer deep	88
2x2 wide, 6-6 long, 4 layer deep	96
2x2 wide, 6-7 long, 4 layer deep	104
2x2 wide, 7-7 long, 4 layer deep	112
2x2 wide, 7-8 long, 4 layer deep	120
2x2 wide, 8-8 long, 4 layer deep	128
3x2 wide, 4-3 long, 5 layer deep	88
3x2 wide, 4-4 long, 5 layer deep	100
3x2 wide, 5-4 long, 5 layer deep	113
3x2 wide, 5-5 long, 5 layer deep	125
3x2 wide, 6-5 long, 5 layer deep	138
3x2 wide, 6-6 long, 5 layer deep	150
3x2 wide, 7-6 long, 5 layer deep	163
3x2 wide, 7-7 long, 5 layer deep	175
3x2 wide, 8-7 long, 5 layer deep	188
3x2 wide, 8-8 long, 5 layer deep	200
3x2 wide, 9-8 long, 5 layer deep	213
3x2 wide, 9-9 long, 5 layer deep	225
3x3 wide, 5-5 long, 6 layer deep	180
3x3 wide, 5-6 long, 6 layer deep	198
3x3 wide, 6-6 long, 6 layer deep	216
3x3 wide, 7-6 long, 6 layer deep	234
3x3 wide, 7-7 long, 6 layer deep	252
5 straight pack 8 long, 5 layer deep	200
5 straight pack 9 long, 5 layer deep	225

BOX PACKAGES

Box shooks used in this State are not standard unless they comply with the following dimensions:

Apple Box

Ends—¾ or ⅞x10½x11½, 2 pcs.___20 to bdl.
Sides—⅝x10½x19½ or 19¾, 2 pcs.__40 to bdl.
T. & B.—¼x5½x19½, or 19¾, 4 pcs. 100 to bdl.
Cleats—⅝x¾x11½, 4 pieces_____100 to bdl.
32 6d nails commonly used per box.

(Inside Measurements.)

The standard size of an apple box shall be 18 inches long, 11½ inches wide, 10½ inches deep, inside measurements.

RULES FOR ESTIMATING PAPER AND CARDBOARD

Wraps for packing 100 boxes Apples_____50 lbs.
Lining for packing 100 boxes Apples_____7½ lbs.
Cardboard for packing 100 boxes Apples_____16 lbs.

RULES FOR USE OF PAPER

Apples—

Use 8x8 for 188-200-213-225 Packs.
Use 9x9 for 175-163-150-138-125-113 Packs.
Use 10x10 for 112-104-100-96-88 Packs.
Use 11x11 for 80-72-64-56 Packs.
Use 12x12 for 50-48-41-36-32 Packs.

ASPARAGUS

U. S. No. 1 shall consist of fresh, well trimmed stalks of asparagus which are not badly crooked; which do not have broken or spreading tips and which are free from decay and from damage caused by dirt, disease, insects, or mechanical or other means.

Unless otherwise specified, the diameter of each stalk shall not be less than ¼ of an inch and the length shall not be less than 8½ inches.

In order to allow for variations incident to proper grading and handling, not more than 5%, by count, of any lot may not meet the size requirements. In addition, not more than 10%, by count, of any lot may be below the

remaining requirements of this grade, but no part of this tolerance shall be allowed for decay.

Unclassified shall consist of stalks of asparagus which are not graded in conformity with the foregoing grade.

SIZE

The following terms are provided for describing the diameters of any lot: "Very small" means less than ¼ inch; "small" means ¼ to 9/16 inch; "medium" means 9/16 to ¾ inch, inclusive; "large" means over ¾ inch.

COLOR

In addition to the statement of grade and size, any lot of asparagus may be classified as green asparagus if 90%, by count, of the stalks in any lot are of a green color covering not less than 4½ inches of the length of the stalk.

DEFINITIONS OF TERMS

As used in these grades:

"Well trimmed" means that the butts of the stalks shall be smoothly and evenly cut and free from stringy or frayed ends.

"Badly crooked" means that the stalk is so misshapen or curved that its appearance is seriously affected.

"Damage" means any injury from the causes mentioned which materially affects the appearance or the edible or shipping quality.

"Diameter" means the greatest thickness of the stalk taken at a point not more than 8½ inches from the tip.

STRING BEANS

GRADES

U. S. No. 1 shall consist of beans of similar varietal characteristics which are fairly bright, fresh, fairly young and tender, firm, of reasonably uniform size, and free from damage caused

by dirt, leaves, leaf stems, foreign matter, hail, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than 10%, by weight, of the beans in any lot may be below the requirements of this grade, but not to exceed a total of 5%, shall be allowed for defects causing serious damage, and not more than 2/5 of this amount or 2%, shall be allowed for beans affected with soft rot.

U. S. No. 2 shall consist of beans of similar varietal characteristics which are fairly fresh, firm and free from serious damage caused by dirt, leaves, leaf stems, foreign matter, hail, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than 10%, by weight, of any lot may be below the requirements of this grade.

Unclassified shall consist of beans which are not graded in conformity with any of these grades.

U. S. Fancy is provided for the use of those who wish a special grade for the superior beans which meet its requirements.

U. S. Fancy shall consist of beans of similar varietal characteristics which are well formed, bright, clean, fresh, young and tender, firm, of reasonably uniform size and free from damage caused by leaves, leaf stems, foreign matter, hail, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than 10%, by weight, of the beans in any lot may be below the requirements of this grade, but not to exceed a total of 5%, shall be allowed for defects causing serious damage, and not more than 2/5 of this amount, or 2%, shall be allowed for beans affected with soft rot.

DEFINITION OF GRADE TERMS

As used in these grades:

1. "Similar varietal characteristics" means

that the beans in any container are of the same color and general type. For example, wax and green beans, or beans of the Refugee and Valentine types must not be mixed.

2. "Firm" means that the beans are not wilted or flabby.

3. "Damage" means that the beans are injured to an extent readily apparent upon examination. Beans showing spots due to Blight, Anthracnose or similar spots are damaged.

4. "Serious damage" means that the beans are injured to such an extent as to seriously injure the appearance or keeping quality of the lot.

CABBAGE

U. S. No. 1 shall consist of heads of cabbage which are of one type, of reasonable solidity and well trimmed; which are not soft, withered, puffy or burst; which are free from soft rot, seed stems and from damage caused by discoloration, freezing, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than 10%, by weight, of any lot may be below the requirements of this grade, but not to exceed 1/5 of this amount, or 2%, may be allowed for decay.

Unclassified shall consist of cabbage which is not graded in conformity with the foregoing grade.

SIZE

The minimum size may be specified in connection with the grades as "U. S. No. 1, 1 pound min." or any lot may be classified as Small, Medium, Large, Small to Medium, or Medium to Large, in accordance with the facts.

	Small	Medium	Large
Pointed	Under 1½ lbs.	1½ to 3 lbs.	Over 3 lbs.
Domestic	Under 2 lbs.	2 to 5 lbs.	Over 5 lbs.
Danish	Under 3 lbs.	3 to 6 lbs.	Over 6 lbs.

In order to allow for variations in sizing not more than a total of 15%, by weight, of

any lot may vary from the size specifications, but not more than 10% may be either above or below requirements for each class. This tolerance is in addition to the tolerance for the grade.

DEFINITION OF TERMS

As used in these grades:

"One Type" means that all the lot is Pointed, Danish, Domestic, Savoy or Red as the case may be. Pointed type includes such varieties as Early Jersey Wakefield, Charleston Wakefield, Early York, Wiggingstadt, and others which normally develop oblong, conical or pointed shaped heads. Danish type includes such late maturing varieties as Danish Ballhead or Hollander, Danish Roundhead, etc., and such early maturing varieties as Cannonball, Danish Summer Ballhead, etc., which normally develop hard, tightleaved, compactly formed heads. A head of any such variety even after trimming will appear tight and smooth leaved around the basal portion and when viewed from the stem end, circular and regular in outline. Domestic type includes such varieties as Succession, All Head Early, Flat Dutch and others that are commonly termed Domestic and which normally develop heads flat in shape and less compactly formed than those of the Danish type. The term also includes such varieties as Copenhagen, Glory of Enkhuizen and others that develop heads roundish in shape but which in solidity of head and storage qualities are similar to the Flat Domestic type.

"Reasonable solidity" means fairly firm for pointed type cabbage and southern Domestic type cabbage. Northern Domestic type cabbage shall be firm and Danish or Hollander type fairly hard.

"Well trimmed" means that the head shall have not more than four wrapper leaves attached and any portion of these leaves appreciably injured by worms or other means

shall be removed, and the stem shall be not longer than ½ inch.

"Soft" means loosely formed or lacking compactness.

"Puffy" means that the heads are very light in weight in comparison to size and have air spaces in the central portion. They normally feel firm at time of harvesting, but soften quickly. They are known as "Balloon Heads" in certain sections.

"Seed Stems" means those heads which have seed stalks showing or in which the formation of seed stalks has plainly begun.

"Free from damage" means that the head shall not be injured to an extent readily apparent upon examination.

CANTALOUPES

U. S. No. 1 shall consist of cantaloupes of one variety which are firm, mature, well formed, well netted, and free from aphis honeydew, cracks, sunburn, decay, and from damage caused by dirt, moisture, hail, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than 10%, by count, of any lot may be below the requirements of this grade, but not over ½ of this tolerance, or 5%, shall be allowed for any one defect causing serious damage, and no part of this tolerance shall be allowed for decay.

Unclassified shall consist of cantaloupes which are not graded in conformity with the foregoing grade.

DEFINITIONS OF TERMS

As used in these grades:

"Mature" means the cantaloupe has reached the stage of development which will insure a proper completion of the ripening process.

"Well netted" means having the netting characteristic of a well-developed specimen of the variety.

"Damage" means any injury from the causes mentioned which is apparent in the process of proper grading and handling.

"Serious damage" means any injury that seriously affects the edible or shipping quality. Cantaloupes which are soft, immature, or cracked shall be considered as being seriously damaged.

SLICING CUCUMBERS

U. S. No. 1 shall consist of cucumbers which may be slightly misshapen but which are fresh, firm; which are sufficiently mature for slicing purposes but not full grown or ripe and which are free from decay and from damage caused by dirt, freezing, mosaic or other disease, insects, or mechanical or other means. **Unless otherwise specified,** the minimum length of the cucumbers shall be not less than 5 inches.

In order to allow for variations incident to proper grading and handling, not more than 5%, by count, of any lot may be below the specified minimum length. In addition, not more than 10%, by count, of any lot may be below the remaining requirements of this grade but not more than 1/10 of this tolerance, or 1%, shall be allowed for decay.

U. S. Fancy shall consist of cucumbers which are well formed, fresh and firm; which are sufficiently mature for slicing purposes, but not full grown or ripe; which have a green color over 2/3 or more of the surface and are free from decay and from damage caused by dirt, freezing, mosaic or other disease, insects or mechanical or other means. **Unless otherwise specified,** the minimum length of the cucumbers shall be not less than 5 inches.

In order to allow for variations incident to proper grading and handling, not more than 5%, by count, of any lot may be below the

specified minimum length. In addition, not more than 10%, by count, of any lot may be below the remaining requirements of this grade, but not more than 1/10 of this tolerance, or 1%, shall be allowed for decay.

Unclassified shall consist of cucumbers which are not graded in conformity with either of the foregoing grades.

DEFINITION OF TERMS

As used in these grades:

"Slightly misshapen" means slightly curved in form or slightly tapered at one or both ends. Cucumbers which are decidedly crooked, hooked, constricted, bottlenecked, double in form or sharply tapering to a point at one or both ends shall be excluded from U. S. No. 1.

"Fresh" means bright, not wilted or old.

"Well formed" means the normal typical shape for the variety.

"Sufficiently mature for slicing purposes" means the cucumber has a bright color and the warts or knobs when present are fairly prominent. The seeds are not hard and the flesh firm and fairly crisp.

"Full grown" means that the cucumber has a dull appearance, is fairly smooth and warts when present are not prominent. Such cucumbers are generally well filled out at the ends and yield to slight pressure of the thumb. The seeds are fairly hard to hard and the pulp in the seed cavity is usually watery or jelly like.

"Damage" means any injury from the causes mentioned which materially affects the appearance, edible or shipping quality.

GREEN CORN

U. S. No. 1 shall consist of ears of green corn of similar varietal characteristics which are well trimmed, well formed and free from damage caused by smut or other disease, in-

sects, mechanical or other means. Cobs shall be well filled with plump and milky kernels and well covered with fresh, green husks.

In order to allow for variations incident to proper grading and handling, not more than 10%, by count, of any lot may be below the requirements of this grade.

U. S. Fancy shall consist of ears of green corn which meet all the requirements of U. S. No. 1 grade except that the ears shall be free from insect injury instead of free from damage caused by insect injury.

In order to allow for variations incident to proper grading and handling, not more than 10%, by count, of any lot may be below the requirements of this grade.

Unclassified shall consist of green corn which is not graded in conformity with either of the foregoing grades.

DEFINITION OF TERMS

As used in these grades:

"Similar varietal characteristics" means that the ears in any container are of similar color and character of growth. Ears of field and sweet corn or white and yellow corn shall not be mixed in the same container.

"Well trimmed" means that the ears are practically free from loose husks and that the shank shall not extend more than one inch beyond the point of attachment of the outside husk.

"Well formed" means that the ears are not stunted. Nubbins are not well formed ears.

"Damage" means injury from any cause which materially affects the appearance or edible quality of the ear. Ears showing worm injury extending not more than 1½ inches from the tip of the cob shall not be regarded as damaged, but worm injury affecting kernels on other parts of the cob shall be considered as damaged.

"Well filled" means that the rows of kernels show fairly uniform development, and that the appearance and quantity of the edible portion of the ear are not materially affected by poorly developed rows.

"Plump and milky" means that the kernels are well developed, but not over mature or shriveled.

"Fresh" means that the husks are not badly wilted, dried, or turning yellow or brown.

PEACHES

U. S. Fancy shall consist of peaches of one variety which are mature, firm, well formed, free from decay, worms, worm holes, growth cracks, scab, scale, split pits, hail injury, cuts which are not healed, and from damage caused by bruises, dirt, or other foreign materials, disease, insects, or mechanical or other means.

Each peach shall meet its varietal color requirement as follows, which is expressed in terms of percentage of the fruit surface showing red color characteristic of the variety.

50 per cent. or more

Carman
Early Rose
Early Crawford
Hiley
Mayflower
Red Bird (Early Wheeler)
St. John
Triumph
Other similar varieties

25 per cent. or more

Belle of Georgia
Cumberland
Elberta
Uneeda
J. H. Hale
Jubilee
Late Crawford
Stump
Other similar varieties

15 per cent. or more

Bilyeau
Champion
Eclipse
Greensboro
Slappy
Smock
Other similar varieties

In order to allow for variations incident to proper grading and handling, not more than 10%, by count, of any lot may be below the specified color requirement. In addition, not

more than 10%, by count, of any lot may be below the remaining requirements of this grade, but not to exceed a total of 5% shall be allowed for defects causing serious damage, and not more than 1/5 of this amount, or 1%, shall be allowed for decay.

U. S. No. 1 shall consist of peaches of one variety which are mature, firm, well formed, free from decay, worms, worm holes, growth cracks, cuts which are not healed, and from damage caused by scab, scale, split pits, hail injury, bruises, dirt, or other foreign materials, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than 10%, by count, of any lot may be below the requirements of this grade, but not to exceed a total of 5% shall be allowed for defects causing serious damage, and not more than 1/5 of this amount, or 1%, shall be allowed for decay.

U. S. No. 2 shall consist of peaches of one variety which are mature, firm, not badly misshapen, free from decay, worms, worm holes, and from serious damage caused by growth cracks, scab, scale, split pits, hail injury, bruises, dirt, or other foreign materials, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than 10%, by count, of any lot may be below the requirements of this grade, but not more than 1/10 of this amount, or 1%, shall be allowed for decay.

Unclassified shall consist of peaches which are not graded in conformity with any of the foregoing grades.

MARKING REQUIREMENTS FOR SIZE

The minimum size, numerical count, or description of pack of the peaches in any package shall be plainly stenciled, labeled, or other-

wise indicated on the package. "Minimum" size refers to the diameter (as hereinafter defined) of the smallest peach. Minimum size shall be stated in terms of whole and quarter inches, or whole and eighth inches, as "2¼ inches minimum," "1⅞ inches minimum," in accordance with the facts.

In order to allow for variations incident to proper sizing, not more than 10%, by count, of the peaches in any package may be below the specified minimum size.

Description of pack refers especially to peaches packed in 6-basket carriers. When used, it shall include the arrangement of the peaches in each layer in the baskets and also the total number of layers in the crate and shall be indicated as follows: 2-2, 6 layers; 2-2, 5 layers; 3-2, 6 layers, in accordance with the facts.

DEFINITIONS OF TERMS

As used in these grades:

"Mature" means that the peach has reached the stage of growth which will insure a proper completion of the ripening process.

"Firm" means that the peach is not soft or overripe.

"Well formed" means that the peach has the shape characteristic of the variety.

"Damage" means any injury to the appearance or the edible or shipping quality of the fruit which is readily apparent in the process of proper grading and handling. Any one of the following defects, or any combination thereof the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

(a) Scab spots when cracked, or when aggregating more than ⅜ inch in diameter.

(b) Scale, when concentrated or when scattered and aggregating more than ¼ inch in diameter.

(c) Split pits, when causing any unhealed

crack, or when causing any crack which is readily apparent or when the fruit is not well formed.

(d) Hail injury which is unhealed or deep, or when aggregating more than ¼ inch in diameter.

(e) Bacteriosis spots when cracked, or when aggregating more than ⅜ inch in diameter.

(f) Leaf or limb rubs when not smooth, or when not light colored, or when aggregating more than ½ inch in diameter.

"Badly misshapen" means that the peach is so decidedly deformed that its appearance is seriously affected.

"Serious damage" means any injury which severely affects the appearance, or the edible or shipping quality of the peach. Any one of the following defects, or any combination thereof the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as serious damage.

(a) Scab spots when cracked, or when healed and aggregating more than 1 inch in diameter.

(b) Scale, when aggregating more than ½ inch in diameter.

(c) Split pits, when causing any unhealed crack, or when healed and aggregating more than ½ inch in length.

(d) Hail injury when unhealed, or shallow hail injury when aggregating more than ¾ inch in diameter, or deep hail injury which seriously deforms the fruit or which aggregates more than ½ inch in diameter.

(e) Bacteriosis spots when cracks are not well healed, or when aggregating more than ¾ inch in diameter.

(f) Leaf or limb rubs, when smooth and light colored and aggregating more than 1½ inches in diameter; when dark or slightly rough and barklike rubs aggregating more than ¾ inch in diameter.

(g) Growth cracks which are unhealed or more than ½ inch in length.

(h) Worms and worm holes.

"Diameter" means the shortest distance measured through the center of the peach at right angles to a line running from the stem to the blossom end.

PEARS

U. S. No. 1 shall consist of pears of one variety which are mature, clean, well formed, free from decay, insect stings, broken skins, and from damage caused by bruises, limb rubs, spray-burn, sunburn, hail marks, drouth spots, russeting, and other damage caused by disease, insects, mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than 10%, by count, of any lot may be below the requirements of this grade, but not to exceed 5%, shall be allowed for defects causing serious damage, and no part of this tolerance shall be allowed for decay.

U. S. No. 2 shall consist of pears of one variety which are mature, clean and not badly misshapen, which are free from decay, broken skins, and from serious damage caused by bruises, limb rubs, spray-burn, sunburn, hail marks, drought spots, disease, insects, mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than 10%, by count, of any lot may be below the requirements of this grade, but no part of this tolerance shall be allowed for decay.

U. S. Combination Grade: When U. S. No. 1 and U. S. No. 2 pears are packed together the packages may be marked "Combination No. 1 and No. 2." In this grade at least 25%, by count, of the fruit must meet the requirements of U. S. No. 1.

Unclassified. Pears which are not graded in

conformity with the foregoing grades may be designated as "Unclassified."

SIZE

The size of the pears in any package shall be plainly stamped or otherwise marked on the package in terms of numerical count or minimum size.

Minimum Size means the largest transverse diameter of the smallest pears permitted in the package taken at right angles to a line running from the stem to the blossom end. Minimum size shall be stated in terms of whole and quarter inches, as 2", 2¼", etc., in accordance with the facts.

In order to allow for variations incident to proper sizing not more than 5%, by count, of the pears in any package, may be below the specified minimum size.

CONDITION

Scald, decay, and other defects which may develop after the pears are packed, and the effects of freezing are defined as applying to condition rather than to grade, provided, that satisfactory evidence be presented to show that these defects were not apparent at time of packing. In case, however, where decay follows skin punctures these punctures will be counted in determining the grade.

DEFINITION OF TERMS

As used in these grades:

"Mature" means having reached the stage of maturity which will insure the proper completion of the ripening process.

"Clean" means reasonably free from dust or dirt and free from excessive visible spray residue.

"Well formed" means having a shape characteristic of the variety.

"Free from damage" means that no blemishes shall materially affect the appearance

of the fruit. The following blemishes shall not be considered as damage: (1) Limb rubs which are not soft and which affect not to exceed an aggregate area of ¾ inch in diameter. (2) Sunburn, if the normal color of the fruit has not been materially changed, or where an aggregate area of not more than ¾ inch in diameter is discolored but without any softening of the flesh or blistering or cracking of the skin. (3) Drouth spots which are only slightly discolored and depressed but where the aggregate area does not exceed ½ inch in diameter. (4) Hail marks, where the injury is superficial and does not affect an aggregate area of more than ½ inch in diameter and where the skin has not been broken or discolored. (5) Slight picking-receptacle and box rubs which are not bruises. (6) Russeting characteristic of the variety. This refers to the more or less solid russeting characteristic of such varieties as Bosc and also to smooth netlike russetting of Barletts and smooth dotted russeting of Anjous characteristic in certain localities of this and certain other varieties not always russeted. (7) (a) Light russeting not characteristic of the variety, where the affected area does not exceed an aggregate of 15% of the surface or (b) russet which is heavy or barklike such as is characteristic of frost injury, where the aggregate area affected does not exceed ¾ inch in diameter.

"Serious damage" means that the defects taken singly or collectively seriously deform or disfigure the fruit or seriously affect the market quality. Worm holes (such as codling moth) and soft bruises shall be considered as serious damage.

Scab spots affecting an aggregate area of not more than ½ inch in diameter shall not be considered serious damage. Small healed worm stings showing a dark discoloration not larger than ⅛ inch in diameter exclusive of any encircling green ring, and where the injury

is superficial and the injury is dry and corky shall not be considered serious damage.

POTATOES

U. S. No. 1 shall consist of potatoes of similar varietal characteristics which are not badly misshapen, which are free from freezing injury and soft rot, and from damage caused by dirt or other foreign matter, sunburn, second growth, growth cracks, hollow heart, cuts, scab, blight, dry rot, disease, insects, or mechanical or other means.

The diameter of potatoes of round varieties shall be not less than 1⅞ inches and of potatoes of long varieties 1¾ inches, but lots of potatoes which are not less than 1½ inches in diameter and which meet the remaining requirements of this grade may be designated "U. S. No. 1, 1½ inches minimum."

In order to allow for variations incident to proper grading and handling, not more than 5%, by weight, of any lot may be below the prescribed size. In addition, not more than 5 per cent., by weight, may be damaged by hollow heart, and not more than 6 per cent. may be below the remaining requirements of this grade; but not to exceed one-sixth of this amount, or 1%, shall be allowed for potatoes affected by soft rot*.

U. S. No. 2 shall consist of potatoes of similar varietal characteristics which are free from freezing injury and soft rot and from serious damage caused by sunburn, second growth, growth cracks, hollow heart, cuts, scab, blight, dry rot, disease, insects, or mechanical or other means.

The diameter of potatoes of this grade shall be not less than 1½ inches.

In order to allow for variations incident to proper grading and handling, not more than

* Soft rot or other deterioration developing in transit on potatoes otherwise up to grade shall be considered as affecting the condition and not the grade.

5%, by weight, of any lot may be below the prescribed size, and, in addition, not more than 6%, by weight, may be below the remaining requirements of this grade, but not to exceed 1/6 of this tolerance, or 1%, shall be allowed for potatoes affected by soft rot.*

U. S. Fancy shall consist of potatoes of one variety which are mature, bright, well shaped, free from freezing injury, soft rot, dirt or other foreign matter, sunburn, second growth, growth cracks, hollow heart, cuts, scab, blight, dry rot, disease, insect or mechanical injury and other defects.

The size shall be stated in terms of minimum diameter or minimum weight or of range in diameter or weight following the grade name, but in no case shall the diameter be less than 2 inches.†

In order to allow for variations incident to proper grading and handling, not more than 5%, by weight, of any lot may vary from the size stated and, in addition, not more than 6%, by weight, of any lot may be below the remaining requirements of this grade, but not to exceed 1/6 of this tolerance, or 1%, shall be allowed for potatoes affected by soft rot.*

DEFINITIONS OF TERMS

As used in these grades:

"Mature" means that the outer skin (epidermis) does not loosen or "feather" readily during the ordinary methods of handling.

"Bright" means free from dirt or other foreign matter, damage or discoloration from any cause, so that the outer skin (epidermis) has the attractive color normal for the variety.

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* Soft rot or other deterioration developing in transit on potatoes otherwise up to grade shall be considered as affecting the condition and not the grade.

† Such statements as the following will be considered as meeting the requirements: "U. S. Fancy, 2 to 3¼ inches"; "U. S. Fancy, 10 ounces to 16 ounces"; "U. S. Fancy, 2 inches minimum"; "U. S. Fancy, 10 ounces minimum."

"Well shaped" means the normal, typical shape for the variety in the district where grown, and free from pointed, dumb-bell shaped, excessively elongated, and other ill-formed potatoes.

"Soft rot" means any soft or mushy condition of the tissue, such as slimy soft rot, wet fusarium or wet breakdown following freezing injury or sun-scald.

"Diameter" means the greatest dimension at right angles to the longitudinal axis. The long axis shall be used without regard to the position of the stem (rhizome).

"Free * * * from damage" means that the appearance shall not be injured to an extent readily apparent upon casual examination of the lot, and that any damage from the causes mentioned can be removed in the ordinary process of preparation for use without appreciable waste. Loss of outer skin (epidermis) shall not be considered as an injury to the appearance.

"Badly misshapen" means of such shape as to cause appreciable waste in the ordinary process of preparation for use.

"Free from serious damage" means that the appearance shall not be seriously injured to an extent readily apparent upon casual examination of the lot, and that any damage from the causes mentioned can be removed in the ordinary process of preparation for use without a waste of 10% or more of the total weight.

STRAWBERRIES

U. S. No. 1 shall consist of strawberries of one variety, with the cap (calyx) attached, which are firm, not overripe, underripe, or undeveloped; and which are free from mold or decay and from damage caused by dirt, moisture, foreign matter, disease, insects, or mechanical or other means. **Unless otherwise specified,** the minimum size shall be not less than ¾ inch in diameter.

In order to allow for variations other than size incident to proper grading and handling, not more than 10%, by volume, of the strawberries in any lot may be below the requirements of this grade, but not to exceed ½ of this tolerance, or 5%, shall be allowed for defects causing serious damage, and not more than 1/5 of this amount, or 1%, shall be allowed for decay.

In addition, not more than 5%, by volume, of the strawberries in any lot, may be below the specified minimum size.

U. S. No. 2 shall consist of strawberries which are free from decay and from serious damage caused by disease, insects, mechanical or other means. **Unless otherwise specified** the minimum size shall be not less than five-eighths of an inch in diameter.

In order to allow for variations other than size incident to proper grading and handling, not more than a total of 10%, by volume, of the strawberries in any lot shall be allowed for defects causing serious damage, but not to exceed 3/10 of this amount, or 3%, shall be allowed for strawberries affected by decay.

In addition, not more than 5%, by volume, of the strawberries in any lot may be below the specified minimum size.

Unclassified, shall consist of strawberries which are not graded in conformity with the foregoing grade.

DEFINITION OF TERMS

As used in these grades:

"Overripe" means dead ripe, becoming soft, a condition unfit for shipment and necessitating immediate consumption.

"Underripe" means so immature that less than 2/3 of the surface of the berry is of a pink or red color.

"Undeveloped" means not having attained a normal shape and development owing to frost injury, lack of pollination, insect injury, or

other causes. "Button" berries are the most common type of this condition.

"Damage" means any injury from the causes mentioned which materially affects the appearance, edible or shipping quality.

"Serious damage" means that the strawberries are soft, badly deformed, badly bruised, leaky, or otherwise seriously injured. Strawberries which are caked with dirt or which show no pink or red color shall be considered seriously damaged.

"Diameter" means the greatest dimension at right angles to a straight line running from the stem to the apex.

SWEET POTATOES

U. S. No. 1 shall consist of sweet potatoes of similar varietal characteristics which are firm, not badly misshapen, which are free from black rot, decay, and freezing injury; from damage caused by dirt, secondary rootlets, bruises, cuts, scars, growth cracks, scald, scurf, or other diseases, weevils or other insects; and by mechanical or other means.

Unless Otherwise Specified, the diameter of each sweet potato shall not be less than 1¾ inches nor more than 3½ inches, and the length shall not be less than 3 inches nor more than 10 inches, but the length may be less than 3 inches if the diameter is 2 inches or more.

Tolerances. In order to allow for variations other than size, incident to proper grading and handling, not more than 10%, by weight, of the sweet potatoes in any lot may be below the requirements of this grade, but not to exceed a total of 5% shall be allowed for defects causing serious damage, and not more than 1/5 of this amount, or 1%, shall be allowed for sweet potatoes affected with soft rot.

In addition, not more than 10%, by weight, of the sweet potatoes in any lot may not meet the size requirements, but not more than ½ of this tolerance, or 5%, shall be allowed for

sweet potatoes which are below the minimum size requirements.

U. S. No. 2 shall consist of sweet potatoes of similar varietal characteristics which are firm and which are free from black rot, decay, and freezing injury; from serious damage caused by dirt, bruises, cuts, scars, growth cracks, scald, disease, weevils or other insects; and by mechanical or other means.

Unless Otherwise Specified, the diameter of each sweet potato shall not be less than 1½ inches nor more than 4 inches.

Tolerances. In order to allow for variations other than size, incident to proper grading and handling, not more than 10%, by weight, of the sweet potatoes in any lot may be below the requirements of this grade, but not to exceed 1/10 of this amount, or 1%, shall be allowed for sweet potatoes affected with soft rot.

In addition, not more than 10%, by weight, of the sweet potatoes in any lot may not meet the size requirements, but not more than ½ of this tolerance, or 5%, shall be allowed for sweet potatoes which are below the minimum size requirements.

U. S. Fancy shall consist of sweet potatoes of similar varietal characteristics which are firm, smooth and well shaped; which are free from black rot, decay, freezing injury; from damage caused by dirt, secondary rootlets, bruises, cuts, scars, growth cracks, scald, scurf or other disease, weevils or other insects; and by mechanical or other means.

The diameter of each sweet potato shall not be less than 2 inches nor more than 3½ inches and the length shall not be less than 3 inches nor more than 6 inches, but the length may be less than 3 inches if the diameter is 2¼ inches or more.

Tolerances. In order to allow for variations other than size, incident to proper grading and handling, not more than 10%, by weight, of

the sweet potatoes in any lot may be below the requirements of this grade, but not to exceed a total of 3% shall be allowed for defects causing serious damage, and not more than 1/3 of this amount, or 1%, shall be allowed for sweet potatoes affected with soft rot.

In addition, not more than 10%, by weight, of the sweet potatoes in any lot may not meet the size requirements, but not more than ½ of this tolerance, or 5%, shall be allowed for sweet potatoes which are below the minimum size requirements.

Unclassified shall consist of sweet potatoes which are not graded in conformity with any of the foregoing grades.

DEFINITION OF TERMS

As used in these grades:

"Similar varietal characteristics" means that the sweet potatoes in the same container shall have skins of similar color, such as white, yellow or red. Moist and dry types shall not be mixed.

"Firm" means that the sweet potato shall not be flabby or shriveled.

"Badly misshapen" means that the sweet potato is so misshapen as to cause a waste for ordinary use of more than 20%, by weight, of the potato.

"Damage" means any injury which materially affects the appearance of the lot or causes appreciable waste in the ordinary preparation for use.

"Serious damage" means any injury not including badly misshapen potatoes, which seriously affects the appearance of the lot, or causes a waste of more than 20%, by weight, in the ordinary preparation for use. Black rot shall be considered as serious damage.

"Diameter" means the greatest dimension at right angles to the longitudinal axis.

"Smooth" means that in addition to other defects which cause roughness, sweet potatoes shall be free from prominent veining.

CANNING TOMATOES

Grades for canning tomatoes which will provide a definite basis for contracts between the canner and the grower are meeting with increasing favor. Such grades must recognize variations in commercial value and still be simple enough to be practical in actual operation.

In recommending the following U. S. grades the U. S. Department of Agriculture has attempted to formulate the views of leading representatives of both growers and canners and careful studies of present practices show them to be practical. However, as the idea of grading tomatoes for cannery purposes is new a further word of explanation seems desirable.

It should be understood at the outset that the only grading required of the grower is the removal of culls. Such tomatoes should be left in the field. It is not intended that the grower sort tomatoes into No. 1 and No. 2 grades. The proposed grades provide a basis for sampling the tomatoes as they are delivered to the cannery.

The application of these grades requires the services of private or official inspectors to determine the amounts of each grade in the various loads of tomatoes. Such inspectors must be capable, efficient, and above all they must be absolutely neutral. The inspectors' reports should show the percentages of U. S. No. 1, U. S. No. 2, and Cull tomatoes.

Buying and selling on grade will encourage better production and better handling. The present practice of paying a flat price for every thing which is accepted, discriminates against the best growers. The grower should be paid a suitable premium for stock of high quality which will make a high quality manufactured product. Such stock can be canned at a minimum cost. On the other hand there should be suitable penalties for the delivery of culls.

GRADES

U. S. No. 1 shall consist of tomatoes which are firm, ripe, well colored, well formed; free from molds and decay and from damage caused by growth cracks, worm holes, catfaces, sunscald, freezing injury, or mechanical or other means. (See minimum size).

U. S. No. 2 shall consist of tomatoes which do not meet the requirements of the foregoing grade, but which are ripe and fairly well colored and which are free from serious damage from any cause. (See minimum size).

Culls are the tomatoes which do not meet the requirements of either of the foregoing grades.

MINIMUM SIZE

The minimum size may be fixed by agreement between buyer and seller. Tomatoes below this specified minimum size shall be classed as Culls.

DEFINITION OF TERMS

As used in these grades:

"Firm" means that the tomato is not soft, puffy, shriveled or water soaked.

"Well colored" means that the tomato shows at least 90% good red color.

"Fairly well colored" means that the tomato shows at least 2/3 good red color.

"Well formed" means that the tomato shall not be extremely flat or otherwise badly misshapen.

"Damage" means any injury which cannot be removed in the ordinary process of trimming and peeling without a loss of more than 10%, by weight, of the tomato in excess of that which would occur if the tomato were perfect.

"Serious damage" means any injury which cannot be removed in the ordinary process of trimming and peeling without a loss of more than 20%, by weight, of the tomato in excess of that which would occur if the tomato were perfect.

FRESH TOMATOES

U. S. Fancy shall consist of tomatoes of similar varietal characteristics which are mature but not overripe or soft; well formed, fairly smooth; which are free from sun-scald, puffiness, catfaces, growth cracks, scars, cuts, disease, freezing, insect, hail, mechanical or other injury.

In order to allow for variations incident to proper grading and handling, not more than a total of 10%, by count, of any lot may be below the requirements of this grade but not to exceed a total of 5% may be allowed for tomatoes which are seriously damaged and not more than 1/5 of this amount, or 1%, may be allowed for tomatoes which are affected by decay.

U. S. No. 1 shall consist of tomatoes of similar varietal characteristics which are mature but not overripe or soft; well formed, fairly smooth; which are free from damage by sun-scald, puffiness, catfaces, growth cracks, scars, cuts, freezing, disease, insects, hail, or mechanical or other means and from any defect or injury that has penetrated through the fleshy outer wall of the tomato.

In order to allow for variations incident to proper grading and handling, not more than a total of 10%, by count, of any lot may be below the requirements of this grade but not to exceed a total of 5% may be allowed for tomatoes which are seriously damaged and not more than 1/5 of this amount, or 1%, may be allowed for tomatoes which are affected by decay.

U. S. No. 2 shall consist of tomatoes which are mature but not overripe or soft; which are free from serious damage caused by sun-scald, catfaces, growth cracks, scars, cuts, freezing, disease, insects, hail, or mechanical or other means and from any defect or injury that has penetrated through the fleshy outer wall of the tomato.

In order to allow for variations incident to proper grading and handling, not more than a total of 10%, by count, may be below the requirements of this grade but not more than 1/5 of this amount, or 2%, may be allowed for decay.

Unclassified shall consist of tomatoes which are not graded in conformity with the foregoing grades.

MARKING FOR SIZE

The minimum size, numerical count, or description of pack of the tomatoes in any package should be plainly stenciled or otherwise marked on the package.

"Minimum size" means the greatest diameter of the smallest fruit measured at right angles to a line running from the stem to the blossom end. It should be stated in terms of whole and quarter inches as "2 inches minimum," "2¼ inches minimum," "2½ inches minimum," and so on in accordance with the facts.

"Description of pack" applies particularly to packing in lugs and should be designated according to the arrangement of the tomatoes in the top layer in a lug, as 5-5, 5-6, 6-6, and so on, in accordance with the facts. The figures given represent the number of rows of tomatoes each way in the lug and it is understood that the two bottom layers of tomatoes in any lug, when packed on edge, shall not contain more than one additional row each way, i. e. that in a 5-5 pack the tomatoes in the two bottom layers must not be smaller than will pack 6 rows each way as 6-6. If tomatoes are packed flat the lower layers should contain only one more row packed lengthwise of lug.

When size has been specified the following tolerance shall apply: In order to allow for variations incident to proper sizing, not more than 10%, by count, may vary from the size specified.

DEFINITIONS OF TERMS

As used in these grades:

"Similar varietal characteristics" means that the tomatoes shall be alike as to firmness of flesh and shade of color, i. e. that soft-fleshed early maturing varieties shall not be mixed with firm-fleshed, mid-season and late varieties or bright-red varieties mixed with varieties having a purplish tinge.

"Mature" means that the contents of the seed cavities have begun to develop a jelly- or glue-like consistency and the seeds are fully developed.

"Well formed" means the normal, typical shape for the variety.

"Fairly smooth" means not noticeably ridged, angular, indented, or otherwise misshapen.

"Damage" means that the tomatoes are injured to an extent readily apparent upon examination.

"Damage caused by puffiness"—Tomatoes damaged by puffiness are usually angular, flat-sided, and thin-walled. Such tomatoes shall not be considered damaged unless one or more locules are distinctly open.

"Catfaces" means irregular, dark, leathery scars usually found at the blossom end, but sometimes on the sides. If shallow and no greater in total area than a dime they shall be allowed in U. S. No. 1.

"Growth cracks" are ruptures or cracks radiating from the stem end. If well healed over and not longer than ½ inch they shall be allowed in U. S. No. 1.

"Serious damage" means that the tomatoes are badly deformed or that surface blemishes cover more than 15% of the surface in the aggregate.

WATERMELONS

U. S. No. 1 shall consist of watermelons of similar varietal characteristics which are mature but not overripe, well formed, and free

from decay, whiteheart, anthracnose and from damage caused by other disease, sunburn, insects, or mechanical or other means. (See size requirements).

In order to allow for variations incident to proper grading and handling, not more than 10%, by count, may be below the requirements of this grade, but no part of this tolerance shall be allowed for decay and not more than 1/5 of the total tolerance, or 2%, may be badly misshapen or seriously damaged by any means.

U. S. No. 2 shall consist of watermelons of similar varietal characteristics which are mature but not overripe, which are not badly misshapen and which are free from decay, whiteheart, and from serious damage caused by sunburn, disease, insects, or mechanical or other means. (See size requirements).

In order to allow for variations incident to proper grading and handling, not more than 10%, by count, may be below the requirements of this grade, but no part of this tolerance shall be allowed for decay.

Unclassified. Watermelons which are not graded in conformity with either of the foregoing grades may be designated as unclassified.

SIZE

Where the size of watermelons is stated in terms of average weight, unless otherwise specified, the melons in any lot averaging less than 30 pounds shall not vary more than 4 pounds below the stated average, and the melons in any lot averaging 30 pounds or more shall not vary more than 6 pounds below the stated average.

Size may also be stated in terms of minimum weight.

In order to allow for variations incident to proper sizing, not more than 5%, by count, of the watermelons in any lot may be below the size requirements.

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TABLE OF WEIGHTS

Average Weight	Minimum Weight (Unless Otherwise Specified)	Tolerance Permitted For Melons Below the Minimum Weight
20	16	5%
22	18	5%
24	20	5%
26	22	5%
28	24	5%
30	24	5%
32	26	5%
34	28	5%
36	30	5%
38	32	5%
40	34	5%
42	36	5%

DEFINITION OF TERMS

As used in these grades:

"Mature" means having reached the stage of development at which the melon is palatable.

"Well formed" means having characteristic shape but not necessarily the perfect type of the variety.

"Not badly misshapen" means that the melons are not bottlenecks or gourdnecks, but may be tapered at the ends or slightly constricted.

"Free from damage" means that the melons are not injured to an extent readily apparent upon examination. Melons showing a greenish yellow sunburned spot not larger than 9 square inches shall not be considered as damaged, but melons showing sunburn in excess of this amount, or which show any pronounced golden yellow color shall be regarded as damaged.

"Serious damage" means any injury which affects the edible quality of the melon or which detracts materially from its appearance. Melons showing sun-scald are regarded as seriously damaged. Melons showing not more than 15 flatly elevated anthracnose spots which are not cracked or pitted shall not be considered as seriously damaged.

UNITED STATES STANDARDS AND GRADES FOR EGGS

United States Standards of Quality For Individual Eggs

Quality Factors	U. S. Special *Min. Requirements*	U. S. Extra *Min. Requirements*	U. S. Standard *Min. Requirements*	U. S. Trade *Min. Requirements*
1. Shell	Clean; sound.	Clean; sound.	Clean; sound.	Clean; sound.
2. Air cell	1-8 inch or less in depth; localized; regular.	1-4 inch or less in depth; localized; regular.	3-8 inch or less in depth; may be slightly tremulous.	May be over 3-8 inch in depth; may be freely mobile.
3. Yolk	Dimly visible.	May be visible.	May be visible; mobile	May be plainly visible; dark; freely mobile.
4. White	Firm; clear.	Firm; clear.	Reasonably firm.	May be weak and watery.
5. Germ	Not visible.	Not visible.	May be slightly visible.	May be clearly visible, but with no blood.

United States Buying Grades For Eggs

	U. S. Extras	U. S. Standards	U. S. Trades
Minimum Requirements	100% U. S. Extras or better,* weight, 24 ozs. net per dozen; minimum rate, 2 ozs. for individual eggs.	100% U. S. Standards or better, weight, 24 ozs. net per dozen; minimum rate, 22 ozs. for individual eggs.	100% U. S. Trades, U. S. Standard Dirties, and U. S. Trade Dirties or better; weight, 22 ozs. net per dozen; minimum rate, 18 ozs. for individual eggs.

* When conditions warrant, a grade of U. S. Specials may be used in buying eggs of a better quality than U. S. Extras.

UNITED STATES WHOLESALE GRADES FOR EGGS

MINIMUM PERCENTAGE	U. S. SPECIALS[1]				U. S. EXTRAS[2]			
	No. 1	No. 2	No. 3	No. 4	No. 1	No. 2	No. 3	No. 4
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
U. S. Specials	80	70	60	50				
U. S. Extras or better	10	20	20	30	80	70	60	50
U. S. Standards or better	Balance	Balance	Balance	Balance	Balance	Balance	Balance	Balance
U. S. Trades or better								
U. S. Standard Dirties or better								
U. S. Trade Dirties or better								
Tolerance or Maximum Allowance Per Case:	Dozen	Dozen	Dozen	Dozen	Dozen	Dozen	Dozen	Dozen
U. S. Trades	10/12	10/12	10/12	10/12	16/12	16/12	16/12	16/12
U. S. Checks	10/12	10/12	10/12	10/12	1	1	1	1
Stained or Slightly Dirty Eggs:								
U. S. Standard Dirties	8/12	8/12	8/12	8/12	8/12	8/12	1	1
U. S. Trade Dirties	4/12	4/12	4/12	4/12	4/12	4/12	8/12	8/12
Stained or Dirty Eggs:								
U. S. Standard Dirties								
U. S. Trade Dirties								
Loss	4/12	4/12	6/12	6/12	6/12	6/12	8/12	8/12

MINIMUM PERCENTAGE	U. S. STANDARDS[3]				U. S. TRADES[4]			
	No. 1	No. 2	No. 3	No. 4	No. 1	No. 2	No. 3	No. 4
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
U. S. Specials								
U. S. Extras or better								
U. S. Standards or better	80	70	60	50				
U. S. Trades or better	Balance	Balance	Balance	Balance	80	70	60	50
U. S. Standard Dirties or better					Balance	Balance	Balance	Balance
U. S. Trade Dirties or better								
Tolerance or Maximum Allowance Per Case:	Dozen	Dozen	Dozen	Dozen	Dozen	Dozen	Dozen	Dozen
U. S. Trades								
U. S. Checks	12/12	12/12	12/12	12/12	16/12	16/12	16/12	16/12
Stained or Slightly Dirty Eggs:								
U. S. Standard Dirties								
U. S. Trade Dirties								
Stained or Dirty Eggs:								
U. S. Standard Dirties	14/12	16/12	18/12	110/12				
U. S. Trade Dirties	8/12	10/12	1	12/12	16/12	3	46/12	6
Loss	8/12	8/12	10/12	10/12	16/12	16/12	16/12	16/12

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